



Southern Elementary School, Georgetown, KY

# Southern Elementary School, Georgetown, KY

## Design Team

Owner: **Scott County Board of Education**  
Architect: **Lucas / Schwering Architects**  
MEP Engineer: **KTA Consulting Engineers**  
Structural Engineer: **Poage Engineers**  
Landscape Architect: **Carman Office**  
Construction Manager: **Alliance Corporation**

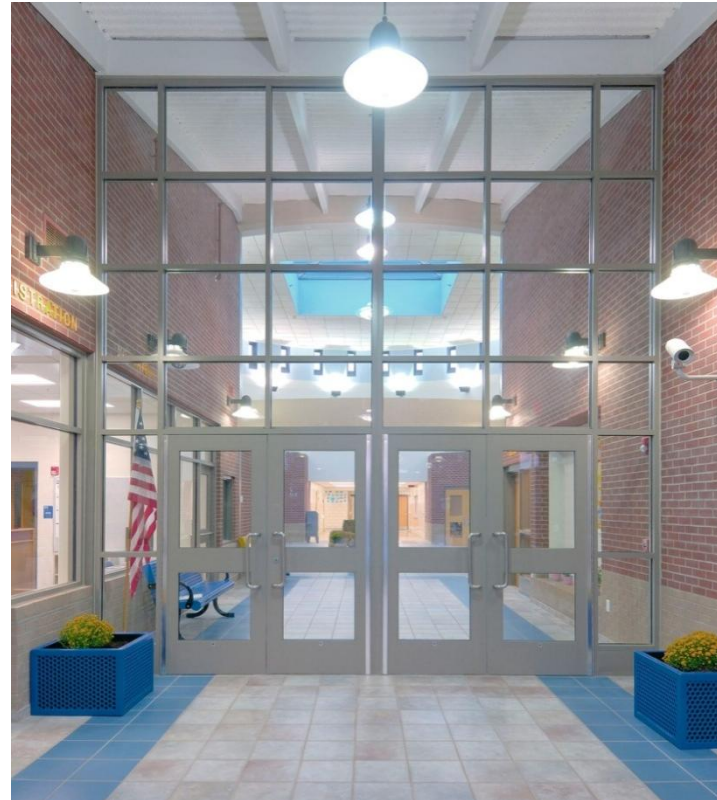
## Building Information

Use Group Occupancy: **Educational**  
Construction Type: **IIB, Fully Suppressed**  
School Type: **Elementary School**  
Grades Served: **K-5**  
School Capacity: **445 students**  
Construction Began: **January 2004**  
Completed: **August 2005**  
Construction Cost: **\$7.3 million**  
Square Foot Cost: **\$91**

## Building Areas

Existing / Renovated: **41,997 gsf**  
New Additions: **37,753 gsf**  
Total Square Footage: **79,750 gsf**

Interior Volume: **1.3 Million Cubic Feet**  
Size of Site: **10.7 acres**



Front Entrance Vestibule

# High Performance Characteristics

## **Site / Urban**

- Neighborhood
  - Investment in existing community infrastructure
- Pedestrian
  - Encourage walking environment with walks and trees.
  - Desire to reduce carbon footprint of vehicle emissions
- Storm Water Management
  - The Southern Elementary school site lies within the recharge zone of the Royal Springs Aquifer. In an effort to comply with the recharge zone requirements, the design team devised a storm water system that collects a portion of the parking and roof runoff and directs it to an underground infiltration system. The system was developed using common construction materials in a non-traditional manner to capture, treat and infiltrate storm water back into the water table.

## **Architectural**

- Daylight to deep parts of interior — reduces need for electric light
- Specific openings in exterior walls
- Reuse of building / infrastructure – landfill reduction
- Thermal - Improved R value of roof / windows
- Interior finishes: No wax rubber and ceramic floors.
  - Reduced maintenance cost
  - Reduces chemicals into wastewater stream

## **Mechanical & Electrical Systems**

### Reduced Energy Consumption

- Geothermal Heating and Cooling
- Gym Controls set up for events— offer make-up air and heating and cooling only when there is a specific demand.
- Night set-back
- Lighting and Controls

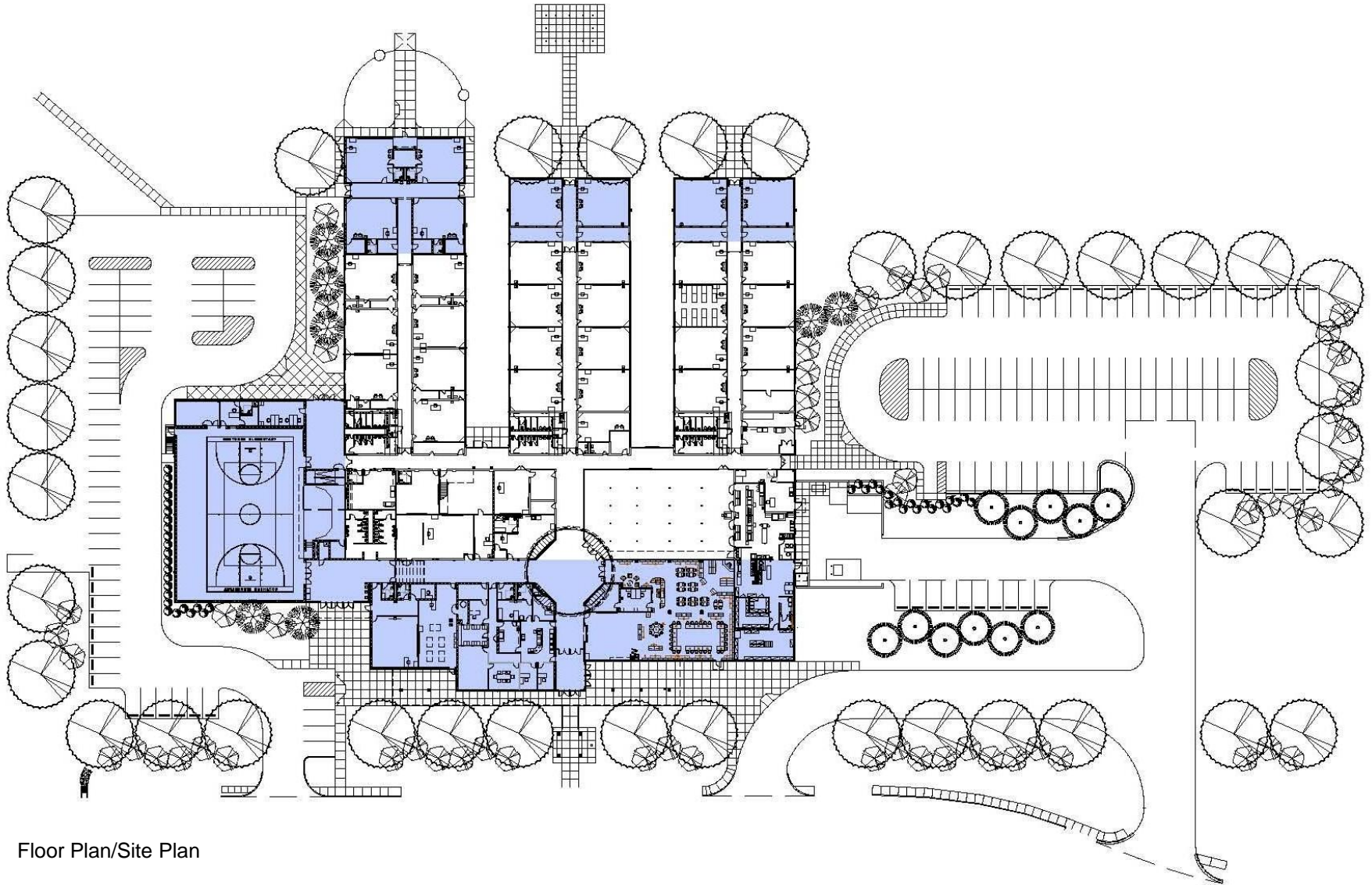
### Improved Indoor Air Quality

- Ease of maintenance = proper filtering
- Reduced CO2 through proper make-up air



Rotunda Interior





Floor Plan/Site Plan

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LUCAS / SCHWERING  
A • R • C • H • I • T • E • C • T • S

**KTR inc.**  
CONSULTING ENGINEERS

KY High Performance Sustainable Schools - Southern Elementary School, Georgetown, KY



**KTA, INC.**



has designed

**8** Energy Star Rated  
Buildings



Classroom – Corner Heat Pumps

Geothermal Wellfield Design

Mezzanine above old gymnasium

Makeup Air Units with Heat Recovery

